2SA1488/1488A

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC3851/A)

Application : Audio and General Purpose

■**Absolute maximum ratings** (Ta=25°C)

Symbol	Ratings 2SA1488	Ratings 2SA1488A	Unit
V_{CBO}	–60	–80	V
V_{CEO}	–60	–80	V
V_{EBO}	–6		V
I_C	–4		A
I_B	–1		A
P_C	25(Tc=25°C)		W
Tj	150		°C
Tstg	–55 to +150		°C

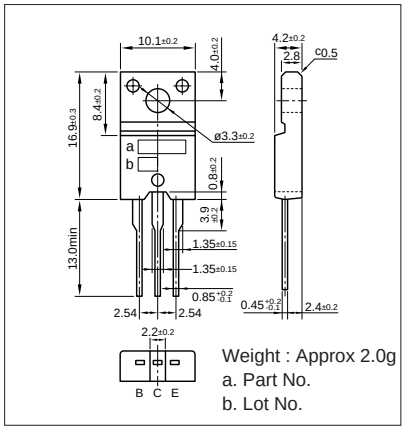
■**Electrical Characteristics** (Ta=25°C)

Symbol	Conditions		Ratings 2SA1488	Ratings 2SA1488A	Unit
I_{CBO}			–100max	–100max	μA
		V_{CB}=	–60	–80	V
I_{EBO}	V_{EB}=–6V		–100max		μA
$V_{(BR)CEO}$	I_C=–25mA		–60min	–80min	V
h_{FE}	V_{CE}=–4V, I_C=–1A		40min		
$V_{CE(sat)}$	I_C=–2A, I_B=–0.2A		–0.5max		V
f_T	V_{CE}=–12V, I_E=0.2A		15typ		MHz
C_{OB}	V_{CB}=–10V, f=1MHz		90typ		pF

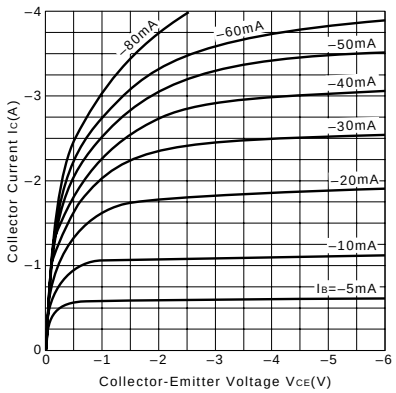
■**Typical Switching Characteristics (Common Emitter)**

V_{CC} (V)	R_L (Ω)	I_C (A)	V_{BB1} (V)	V_{BB2} (V)	I_{B1} (mA)	I_{B2} (mA)	ton (μs)	tstg (μs)	tf (μs)
–12	6	–2	–10	5	–200	200	0.25typ	0.75typ	0.25typ

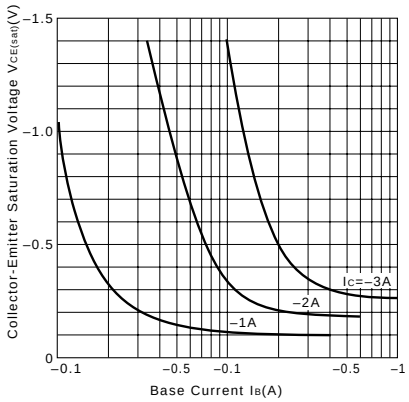
External Dimensions FM20 (TO220F)



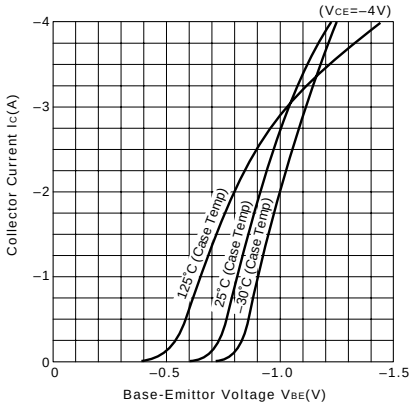
I_C–V_{CE} Characteristics (Typical)



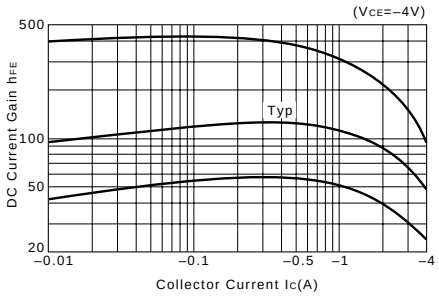
V_{CE}(sat)–I_B Characteristics (Typical)



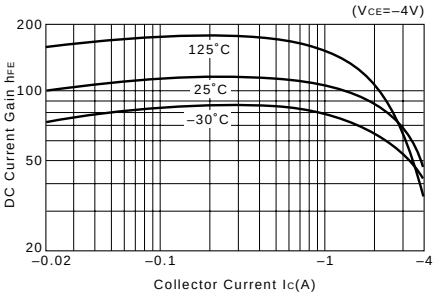
I_C–V_{BE} Temperature Characteristics (Typical)



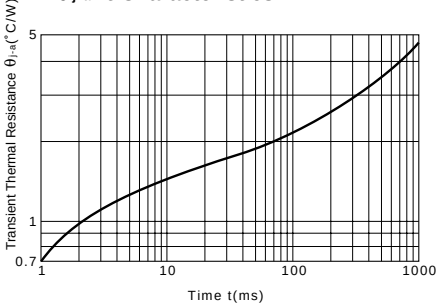
h_{FE}–I_C Characteristics (Typical)



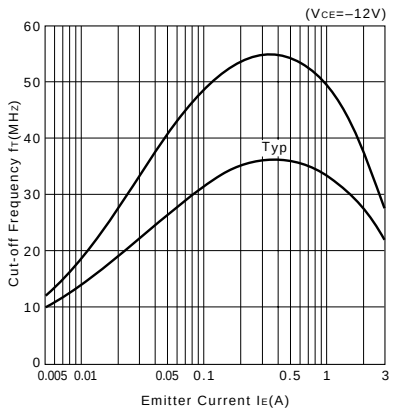
h_{FE}–I_C Temperature Characteristics (Typical)



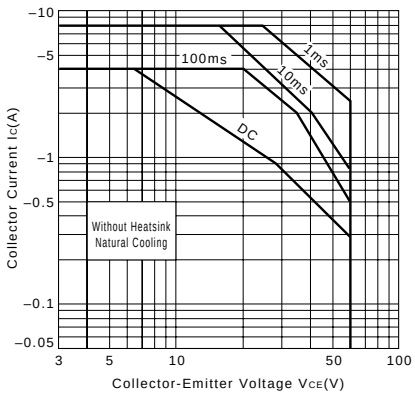
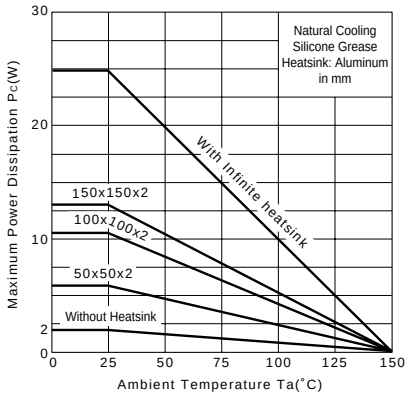
$\theta_{j\text{-}a}$–t Characteristics



f_T–I_E Characteristics (Typical)



Safe Operating Area (Single Pulse)



Pc–Ta Derating